

## ABSTRACT

A device for producing electrical discharges in an aqueous medium which comprises a first electrode and a second electrode comprised of a superalloy having a cobalt content of greater than 8% by weight or optionally a nickel content of greater than 8% by weight. A high electrical voltage is applied to the electrodes to produce a voltage discharge into the medium that creates a pressure wave in the medium. The electrodes of the device exhibit high thermal shock resistance during discharge thereby reducing tip burnout.